

## **Gold Quarry Slide – Investigation Project Status Report 19Jul05**

### **CAUSAL INVESTIGATION**

- ⊕ Historic Information: See 'Report' below. Review of historic records identified a USGS Topographic map which depicted an intermittent stream channel in the slide area; additional investigation – drilling additional boreholes and completing them as piezometers – is in development.
- ⊕ Materials Characterization and Testing: As reported and discussed at the June field meeting, data from piezometer GQND-3 show elevated pore pressures in the lower portion of Lift 1. The other piezometers are essentially dry. Planning for additional boreholes to gather information concerning water conditions at the Lift 1 – Substrate area in the 'remaining' waste facility is in process.

*Eight shear tests of the Lift 1 material have been completed. In general, the residual strengths are falling in the 'Mesri' ranges – as discussed at the last field meeting. Average strengths correspond to a Plasticity Index of 27-28. Dr. Mesri (University of Illinois) has completed some testing. After further analysis and consideration, there is some question concerning the applicability of the Mesri approach to this slide. The question arises from the sample preparation associated with the Mesri testing. Additional testing of Carlin formation materials to address strengths is planned.*

*On 11 July, Eric Bates (Newmont) conducted a detailed slide area site tour for Dr. Bob Watters. On 19 July, Newmont and CNL staff held a teleconference with Dr. Dirk van Zyl and Dr. Bob Watters to discuss technical findings and ideas concerning the investigation.*

### **STABILIZATION AND REMEDIAL ACTION PLAN**

- ⊕ Environmental Protection and Monitoring: Stormwater Best Management Practices (BMPs) continue to be regularly inspected and maintained as necessary. Routine monitoring of Maggie Creek was concluded on 18May05. Again, data show no impacts to Maggie Creek.
- ⊕ Geotechnical Monitoring: The robotic theodolite and associated equipment continue to monitor slope movement. The data show no significant movement. Manual surveys of the monitored prisms continue and these data also show no significant movement. Slope movement monitoring, with cable extensometers also continues and shows no significant slope movement. The extensometers and associated alarms continue to be tested weekly.
- ⊕ Unweighting: All currently planned unweighting work has been completed. Removal and/or reshaping of material in the waste facility and the slide mass may be needed for long-term stability; the need for such action(s) is being considered in the design work as part of the 'report' (see below).

- ⊕ Road Repair: *Newmont and NDOT assessed road surface performance following the pavement repair work and concluded additional work was necessary. As a result, a longer road segment was 'repaved' with and overlay of asphalt.*

*NDOT has determined that the 'bypass' road is not needed for the scheduled 'pavement preservation' work in 2007. Therefore, the bypass road will be 'removed' and reclaimed.*

- ⊕ Long-term Stability and Reclamation Plan: *Preliminary findings are being used to develop concepts for the long-term stability and reclamation plan. These concepts include reshaping of the failure area to a 'tilted bowl' configuration and other treatments.*

- ⊕ Report: *Work continues on preparation of the Gold Quarry Slide: Geotechnical Investigation, Slide Mechanics Report, and Long-Term Stability Plan. As previously discussed, the preliminary table of contents for the report is:*

0. Executive Summary
1. Introduction
2. Site Investigation and Possible Failure Modes
3. Construction and Operations History
4. Foundation Conditions
5. Geotechnical Properties
6. Failure Mechanism
7. Conclusion
8. Long-Term Stability and Reclamation Plan
9. References
10. Appendices

*A draft report is expected in late July – early August.*